

National Aquaculture Council Inc.

ABN 96 912 231 582



Friday, 12 May 2017

Senator Glenn Sterle
Chair
Senate Standing Committees on Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra ACT 2600

Via email: rrat.sen@aph.gov.au

Dear Senator,

Re: Senate Inquiry – Inquiry into the biosecurity risks associated with the importation of seafood and seafood products (including uncooked prawns and uncooked prawn meat) into Australia Seafood and Seafood Products

The National Aquaculture Council (NAC) writes to you in response to the recent call for submissions to the Senate Committee for Rural and Regional Affairs and Transport, which were initially due for this inquiry on 13 April 2017.

NAC acknowledges and appreciated the extension kindly provided by the Senate Standing Committees on Rural and Regional Affairs and Transport for the purposes of better consulting with the varied membership of NAC in order to collate a more meaningful submission. Please find attached the NAC submission on White Spot in prawns, imported seafood and other related issues.

Should it be required the NAC is happy to speak to this submission.

Yours sincerely

Aaron Irving
Executive Chair - NAC

NAC Secretariat; C/o Tasmanian Seafood Industry Council.

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National Aquaculture Council Inc.



Submission to the

**Australian Senate: Rural and Regional Affairs and
Transport References Committee**

on the

**Inquiry into the biosecurity risks associated
with the importation of seafood and seafood
products (including uncooked prawns and
uncooked prawn meat) into Australia
Seafood and Seafood Products**

May 2017

Australian Senate (Rural and Regional Affairs and Transport References Committee) Inquiry into biosecurity risks associated with the importation of seafood and seafood products.

1. EXECUTIVE SUMMARY

1.1 OVERVIEW

Over 100,000 tonnes of fresh or frozen seafood is imported into Australia annually. Despite the ability of some of these products to transmit exotic diseases to Australia, in many cases there are very few import controls applied to them. The portion of these products that are derived from aquaculture (around 50%) pose a significant biosecurity risk to Australian aquaculture. This has been amply demonstrated by the recent outbreak of White Spot Disease (WSD) in prawns in Queensland and in numerous international examples.

Over the past three decades, global aquaculture has expanded tenfold. Much of this expansion occurred in Asia where the majority of seafood imports to Australia are sourced. During that time more than fifteen entirely new aquaculture diseases have been described, most of which are exotic to Australia.

Australian aquaculture has already experienced White Spot Disease (WSD) in prawns and Pacific Oyster Mortality Syndrome (POMS), with devastating consequences. Further to this, it must be expected that more diseases will challenge this country's biosecurity in future., and in doing so place Australia's Aquaculture Industry at risk.

An Import Risk Analysis (IRA) for prawns was completed in 2009, and disease testing of imports was implemented as a result. However, this was not sufficient to prevent the WSD outbreak.

In the case of finfish, an IRA was completed in 1999. Notwithstanding that this IRA set the current import controls for salmonids and the pre-border, border and post-border import permits requirements for baitfish, the NAC acknowledges that this IRA is almost 20 years old and does not reflect the breadth of the current finfish imports. For example, the finfish IRA does not identify and quantify risk specifically to barramundi, which is an iconic Australian species. It is NAC's submission that Barramundi conform specifically to the Harmonized Commodity Description and Coding System (HS) with its own HS code, and be the subject of its own IRA. We note further, that as far as can be determined, an IRA has not been conducted on molluscs.

The National Aquaculture Council (NAC) places the highest possible priority on mitigating, minimising and avoiding the biosecurity risk associated with the importation of seafood and seafood products. To this end we recommend that the precautionary principle be applied, consistent with WTO and Australia's sovereign trade obligations, when there is insufficient information to demonstrate acceptable importation risk and that an 'appropriate level of protection' (ALOP) cannot be achieved.

1.2 RECOMMENDATIONS

Recommendation 1

The NAC strongly urges the Australian Government to implement the recommendations provided to this Inquiry in the submission by the Australian Prawn Farmers Association.

Recommendation 2

The NAC recommends that an urgent Import Risk Analysis (IRA) be initiated for barramundi in the face of recognized, specific disease threats. This IRA needs to be predicated on Barramundi specific Harmonized Commodity Description and Coding System (HS) codes.

Recommendation 3

The NAC recommends that in order to ensure important that import controls are fit for purpose, are within Australia's best interest and are consistent with Australia's international trade obligations including conformance with WTO rules, SPS Agreement provisions and trade agreements with key export markets; there should be greater inclusion of aquaculture and seafood producers at the biosecurity/trade interface. Currently Industry although consulted, is all but excluded from direct engagement in these processes. It is NAC's submission that aquaculture seafood producers are well placed to understand the tension between the importance of engaging with external markets and relying on and adhering to effective biosecurity.

Recommendation 4

The NAC strongly urges the Australian Government to undertake an IRA for molluscs.

Recommendation 5

The NAC acknowledges that it can take up to a year or more to complete an IRA. Therefore the NAC recommends that concurrent with the time required to undertake an IRA review, surveillance testing for exotic diseases should be conducted on representative samples of all imported, fresh and frozen aquaculture sourced seafood. In the event that there are significant detections, strong mitigation measures must be implemented, which could include temporary suspension of fresh and frozen aquaculture imports until the risk can be demonstrated to be low and that ALOP can be achieved.

The outbreak of white spot disease in Queensland puts considerable pressure on Australia's competitive advantage as a low biosecurity risk aquaculture producer of high quality prawns. All prawn farms must now consider making significant capital investments in biosecurity infrastructure to prevent the introduction of disease agents. This includes arrangements for water filtration, disinfection, and the control of crabs, birds and the prevention of access by unauthorized persons.

Recommendation 6

The NAC encourages Commonwealth and State Governments to provide financial support for existing aquaculture farms to rapidly upgrade their biosecurity infrastructure. A system similar to the Commonwealth On-Farm Further Irrigation Efficiency Program available to farms in the Murray Darling Basin would be a cost effective investment.

The NAC notes that, following the incursions of POMS and WSD, leaders in government and industry recognise the negative impact of the absence of an Aquatic Emergency Animal Disease Response Agreement (Aquatic Deed) between Governments and Industry. Acknowledging that negotiations for an Aquatic Deed by Industry and Government parties is currently underway; it is widely accepted that such

an agreement should significantly improve communication, coordination and financing of future emergency disease responses.

Recommendation 7

Until the ratification of the Aquatic Deed, It is the recommendation of NAC that the Government remains totally responsible for any disease entry, which is the result of breakdowns in border biosecurity.

The NAC submits that evidence provided by Department of Agriculture and Water Resources (DAWR) staff to the Senate Estimates Committee over recent months makes it clear that DAWR knew of the breakdown in WSD biosecurity more than six months prior to the first diagnosis of WSD. The decision by DAWR not to inform Industry and State governments of this situation in order to protect the integrity of criminal prosecutions in Operation Cattai, has significantly damaged trust on many levels within the biosecurity chain. Similarly, the apparent willingness of many prawn importers to flout biosecurity controls and the culture in DAWR that allowed it to happen has reduced the confidence in Australia's import biosecurity framework for aquaculture products.

2. INTRODUCTION

2.1 BACKGROUND

The National Aquaculture Council (NAC) is widely recognised as the peak industry body of the Australian aquaculture industry. The membership of NAC, comprising Australian aquaculture, mariculture and pearl culture contributes in excess of \$1 billion to the Australian economy; what is more over the last decade aquaculture production increased exponentially, and is expected to continue to do so with aquaculture sectors such as salmon showing strong export growth and pearl exports improving on previous years.

Members of NAC include:

- Australian Abalone Growers Association (AAGA)
- Australian Barramundi Farmers Association (ABFA)
- Aquaculture Council of Western Australia (ACWA)
- Australian Pearl Producers Association (PPA)
- Australian Prawn Farmers Association (APFA)
- Australian Southern Bluefin Tuna Industry Association (ASBTIA)
- Oysters Australia (OA)
- Tasmanian Salmonid Growers Association (TGSA)
- Tasmanian Seafood Industry Council (TSIC)
- Sydney Fish Market
- Aquaculture Feed Industry

On behalf of the Australian aquaculture industry, the NAC performs an important advocacy and representative role at the national level to the Australian Government; working on a number of fronts to provide input to policy directions that are favourable to the growth, prosperity and profitability of the Australian aquaculture industry.

2.2 NAC SUBMISSION

The NAC thanks the Australian Senate (Rural and Regional Affairs and Transport References Committee) for the opportunity to make a submission Inquiry into biosecurity risks associated with the importation of seafood and seafood products.

For the NAC, and the aquaculture industry broadly, biosecurity is a very high priority, which is afforded significant resources in order to ensure the Australian aquaculture products are produced in an aquatic environment where threats from pathogenic diseases and pests are avoided or minimised.

Indeed, the NAC has posited that effective biosecurity; minimising disease threats and effectively responding to them will be some of the most significant challenges facing the aquaculture industry over the next 20 years.

The NAC notes that this inquiry into the importation seafood and seafood products and the biosecurity risks associated with the importation of aquaculture products represents an opportunity to explore issues, bring problems out into the open and find solutions for them. We appreciate the opportunity to contribute to this important inquiry.

This submission will address the following Terms of Reference:

- The effectiveness of biosecurity controls imposed on the importation of seafood and seafood products, including, but not limited to, uncooked prawns and prawn meat into Australia, including the import risk analysis process concluded in 2009 that led to these conditions being established;
- The adequacy of Commonwealth resourcing of biosecurity measures including Import Risk Assessments;
- Domestic and foreign trade implications for Australian industries resulting from the suspension of importation of seafood and seafood products, including, but not limited to, uncooked prawns and uncooked prawn meat in Australia;
- Matters to be satisfied in the management of biosecurity risk before imports of seafood and seafood products, including, but not limited to, uncooked prawns and uncooked prawn meat into Australia could recommence;
- Any related matters.

Although the above Terms of Reference are addressed they are not set out under each term of reference, rather they are canvassed within the body of relevant sections.

2.3 OTHER SUBMISSIONS

As mentioned above the NAC is recognised federally as the peak industry body of the Australian aquaculture industry. NAC performs an important advocacy and representative role at the national level to the Australian Government on behalf of its members. Therefore NAC supports those submissions provided by NAC member organisations including those provided by the Australian Prawn Farmers Association (APFA), the Australian Barramundi Farmers Association (ABFA) and the Australian Southern Bluefin Tuna Industry Association (ASBTIA), where relevant.

The NAC is a member of the National Seafood Industry Alliance (NSIA) representing the aquaculture sector, and supports the submission made by NSIA, and that of other members of NSIA, where they are not inconsistent with aquaculture.

Notwithstanding the overlapping interests and synergies of NAC, its members and NSIA; this NAC submission will focus on issues, which are of particular relevance to the aquaculture sector of the seafood industry.

3. SUBMISSIONS AND RECOMMENDATIONS

3.1 THE CURRENT STATUS OF SEAFOOD IMPORTS INTO AUSTRALIA

The highest risk products from a biosecurity standpoint are fresh and frozen fish produced in aquaculture facilities and imported into Australia. This is compounded if the products require any subsequent processing which results in animal waste or waste water associated from the processing.

The major seafood species that are potential risks are prawns, basa, barramundi, salmonids, oysters and mussels. It is also widely accepted that imported ornamental species pose significant biosecurity risks.

Table 1: Volume and Value of Seafood Imports into Australia 2014-15 year (Savage, 2015):

Imported Item	Volume ('000 tonne)	Value (\$Billion)
Fish	160	1.0
Crustaceans and Molluscs	68	0.8
Total, Edible	228	1.8
Non-edible	na	0.2
All fishery and aquaculture products	na	\$2billion

The NAC notes that of the 228,000t of edible seafood imported in 2014-15, 117,000t was imported fresh or frozen. The proportion of these products derived from aquaculture cannot be accurately determined due to lack of data. However it can be assumed that imported prawns (21,000t), salmonids (4,400t), and mussels (1,800t) are aquaculture products. The NAC notes further, another significant category 'other' (59,000t) presumably includes a large volume of basa, plus barramundi. It can therefore be assumed that at least 50 per cent of this imported fresh or frozen seafood is derived from aquaculture. The major sources of seafood imports are Thailand, China, Vietnam and New Zealand, in that order.

3.2 IMPORT RISK ASSESSMENTS, RISK ANALYSIS & TRACEABILITY

As discussed above, to better understand the nature and scope of aquaculture and fishery seafood and seafood product importation into Australia, a detailed analysis of seafood import is required. It simply is not possible to holistically understand the depth and breadth of the risk associated with imported seafood products, with the paucity of published data relevant to aquaculture species. This is a significant problem that needs to be addressed as the aquaculture industry grows.

This could be achieved with the incorporation of minimum traceability requirements for all seafood products entering Australia. These traceability requirements, which enable key data elements (including for example, country of origin, region, production method (whether aquaculture or wild sourced), species, harvest date, farm or vessel etc.), to be readily utilised and understood along the seafood supply chain to assist not only with supply chain management, but also risk management.

Another readily achievable traceability innovation to buttress the ability to track entry of at risk species is to ensure that the international Harmonized Commodity Description and Coding System (referred to as the 'Harmonized System' or 'HS') is extended to 8 digits. This extension would essentially enable key seafood species, such as barramundi, to be adequately reported, for both risk analysis and tracking purposes. This should include information as to country of origin and the form of the product (i.e. whole, skin on, fillet, fresh, frozen etc.).

3.3 BIOSECURITY ARRANGEMENTS

Australia allows the importation of virtually all seafood in a non-viable, fresh or frozen state. Various conditions that are common to all food imports are placed on import permits, which can include certification of disease free status by the exporting country. Other than uncooked prawns, none of these products are tested for infectious disease agents before or after arrival in Australia. Imports of some species sourced from the wild are allowed under strict pre-border, border and post-border licences.

The arrangements for testing of prawns for two exotic diseases have been in place since 2010, but these have been demonstrated to have been not sufficient to prevent the recent incursion of White Spot Disease (WSD). It appears that the arrangements for sampling and testing of prawns may have been overwhelmed by the arrival in Australia of many infected shipments. While testing imported seafood is an appropriate method of surveillance and early detection of diseased product, it is pushing the system too hard to use it as a screening system whereby product is admitted or rejected after it has arrived in Australia. The APFA submission deals with this weakness in more detail.

It is the NAC submission that testing alone is not designed for significant and ongoing breaches in biosecurity protocol. The reliance on testing at the border as a means to manage the risk of disease from countries where diseases are present and/or endemic is illogical. Furthermore it is arguable that such a tactic inevitably results in the system being pushed outside the initial design parameters of the testing protocols.

It is essential that Australia's biosecurity controls remain a process of exclusion and prevention. What is more, the reliance on testing, effectuates a false confidence and a break down in precaution with testing only being possible for diseases with a known aetiology and epidemiology and/or where there are available diagnostic tests. Additional aquatic diseases can emerge at any time, regardless of whether or not they are known or testable. What is of even greater concern, are those new diseases that have yet to be identified and therefore lack any requisite diagnostic test.

It remains that in addition to extant testing arrangements, Australia is dependent on the vigilance of the competent authorities of the exporting countries for the prevention of entry of aquaculture diseases. This tactic is also fraught with risks. With respect to white spot disease in prawns, it has been demonstrated that more than fifty per cent of prawn shipments destined for Australia prior to the outbreak of WSD were contaminated with the virus that causes WSD. This is *prima facie* evidence that Australia cannot rely on overseas authorities to always act in a competent manner, and in Australia's best interest. Australia has a primary responsibility to manage its own biosecurity and use whatever measures deemed appropriate to ensure imported enter Australia's borders in the best interest of all Australians.

Import Risk Assessments are key documents in the determination of conditions imposed by Australian authorities on imports of seafood. Two Import Risk Assessments have been conducted on seafood imported to Australia.

- Generic Import Risk Analysis Report for Prawns and Prawn Products, Final Report. Biosecurity Australia, 2009.
- Import Risk Analysis on Non-viable Salmonids and Non-salmonid Marine Finfish, AQIS, 1999.

The NAC notes that the Import Risk Analysis for Non-viable Salmonids and Non-salmonid Marine Finfish, which was completed 20 years ago, was completed prior to the worldwide expansion of aquaculture, particularly in Asia. What is more, it has not been possible to find any IRA conducted for oysters, mussels or other molluscs. Given that Australia has a number of significant *Mollusca* aquaculture sectors, including Australian south sea pearl oysters, edible oysters, mussels and cockles/pipis, the urgent need for an IRA is certainly present.

3.4 SEAFOOD IMPORTATION & BIOSECURITY RISKS

The NAC notes, that over the past three decades, global aquaculture production has grown tenfold, from 5 million tonnes to 63 million tonnes (World Bank, 2013). As with any rapidly growing industry, there is a risk component in the global expansion of aquaculture that has not been adequately recognised by governments (Brugere et al 2017). Not surprisingly for an intensified animal industry, disease is the biggest constraining factor in aquaculture (Stentiford et al 2012). It is well documented that global pandemics have removed or temporarily halted production of prawns, oysters, salmon and other species in many countries over the past decade (Stentiford et al 2017). These epidemics are sure to continue as new diseases continue to emerge (Thitamadee, 2016) and seafood and seafood products (one of the most traded commodities on Earth) continue to be traded.

The expansion of aquaculture in Asia has also occurred at frenetic pace relative to some other areas; and this expansion provides a specific risk to Australian aquaculture because:

- Disease prevalence is very high in Asian aquaculture,
- Aquaculture products (such as prawns or barramundi) which are produced in Asia are very cost effective for Australian consumers, and to that end enjoy considerable demand, The 'Australia's Seafood Trade' Report (DAWR 2015) reports that *"In Australia, frozen and thawed basa (catfish) fillets from farms in Vietnam are now the most commonly and widely eaten import."* The report further notes that *"the low lost, white boneless flesh and neutral flavour of basa makes it attractive to a large cross section of the Australian Community."*
- Asia is the major source of seafood Australian aquaculture imports and it is noted that these additional volumes of incoming seafood places significant pressure on domestic agencies to effectively test and manage the likelihood of incoming aquatic diseases,
- In many Asian countries, biosecurity controls, disease reporting and compliance arrangements are not as effective as they need to be if Australia is to rely on certification by competent authorities for prevention of disease incursions.

The impact of the above four points can be seen in the recent prawn WSD incursion, where it is clear from public evidence that a significant proportion of import consignments were contaminated.

The NAC submits that any future evaluation of import controls on aquaculture product into Australia must be precautionary in approach, and be predicated on the assumption that the risk of incursion by known and new, unknown diseases is large and increasing. However NAC also submits, that it is important that import controls are fit for purpose, they are within Australia's best interest and are consistent with Australia's international trade obligations including conformance with WTO rules, SPS Agreement provisions and trade agreements with key export markets.

The NAC submits that fit for purpose import controls, could be better developed with greater inclusion of aquaculture and seafood producers at the biosecurity/trade interface. It is noted that the recent Inter-Governmental Agreement on Biosecurity (IGAB) Review Report (2016), recommended movement towards real and effective shared responsibility between Industry and Government, noting increased engagement and consultative capacity for stakeholders. NAC notes that Recommendation 2 of this report recommends *"the Primary Industries Technical Market Access and Trade Development Task Group, should seek to enhance engagement with industry to ensure that Australia's market access strategies are aligned appropriately through an agreed priority setting process, and that the degree of transparency and communication is carefully weighed against its level of risk to trade activities."* NAC responded acknowledging the need to explicitly extend the recommendation to biosecurity engagement.

Currently Industry is all but excluded from direct engagement these processes, yet it is NAC's strong argument that no-one is better placed than aquaculture seafood producers to understand the tension between the importance of engaging with external markets and adhering to and relying on effective biosecurity.

3.5 SPECIFIC INDUSTRY SECTOR ISSUES

This section deals with some issues that have been identified by individual NAC members.

Australian Prawn Farmers Association (APFA)

The NAC fully supports the comments and recommendations made by APFA to the Inquiry. In particular, the following recommendations bear repetition.

1. Dismantle the importation controls based on disease testing. NAC notes that it needs to be generally accepted that diseases such as WSD are endemic in Asian countries, that export farmed prawns to Australia, to the extent that is highly unlikely that imported prawn products will be free of disease.

The predictive value of the testing standards set by the import risk assessment for imported prawns is too low to prevent an influx of diseased prawns. Also, testing cannot prevent the entry of the new exotic diseases of prawns that are continually emerging. A system whereby tens of thousands of tonnes of imported product, of which up to fifty percent might be infected, must be tested by specialist laboratories on arrival in Australia is bound to fail. The sheer volume of work, its enormous cost to the importer, the delay in clearance from customs, the time required by customs staff, the high proportion of test positive consignments, the subjective interpretation of marginal test results, and the inevitable human errors associated with such a large volume of sample collection and testing all conspire to cause problems. Dismantling this system would achieve significant savings for government and industry throughout the supply chain. Post entry testing should be restricted to audits and investigations.

2. Harmonise import conditions for prawns with other imported meats. Cooking is considered to be an effective method for elimination of pathogens in pork and chicken, which underpins the import controls for these products. Prawn import controls should be set at the same Appropriate Level of Protection as chicken, pork and salmon. Furthermore, it should be noted that the Tasmanian salmon aquaculture industry is further protected through geographical isolation combined with bans on importation of uncooked salmon products.
3. Eliminate the “Highly Processed” risk management option in the import controls. This option, even if applied correctly, is a mechanism by which many tonnes of diseased prawns can be knowingly released into Australia’s retail markets and should be eliminated immediately.
4. Enhance inspection of Australian prawns that are processed in Asia then re-imported. Any approved arrangements for reimporting of Australian prawns that have been processed overseas should involve direct inspection and ongoing audits of the overseas processing establishments by Australian authorities.
5. Continued surveillance. There is a proportion of importers/exporters that are willing to circumvent the law. It would be folly to think that prosecution of some people and introduction of new controls will completely solve the problem. Consequently, no matter what changes are made, ongoing surveillance of prawns in retail outlets is strongly recommended. Similarly, awareness of the possibility of corruption should be incorporated in any monitoring of the prawn import controls.

Australian Barramundi Farmers Association (ABFA)

The NAC supports the Australian Barramundi Farmers Association (ABFA) in its objective of eliminating the risk associated with importation from Asia of fresh and frozen whole and filleted Barramundi.

With respect to risks associated with the import of barramundi products, ABFA submitted to the Joint Select Committee Inquiry on *Northern Australia Inquiry into opportunities for expanding aquaculture in Northern Australia*, that risks are exacerbated by a requirement to sell ALL *Lates calcaifer* [barramundi] products, which is known overseas as 'Asian Sea Bass' as 'barramundi' regardless of whether it was produced in Asia and imported into Australia. ABFA recommends that the name 'barramundi' be reserved solely for fish that have been wholly grown or caught in Australia. It is accepted that Country of Origin Labelling would also go some way to deconstruct the confusion and overcome much of the risk.

The conditions for these imports are based on the 1999 Non-salmonid Marine Finfish IRA. Since that time serious new diseases of Barramundi have emerged in Asia; eg Pot Belly Syndrome and Scale Drop Syndrome.

To further examine the potential risks to the Australian Barramundi industry, Charles Sturt University conducted a Fisheries Research and Development Corporation (FRDC) funded research project to assess the risk of exotic disease introduction from the importation of Barramundi products (Hernandez-Jover et al, 2017). The study identified four exotic disease agents as hazards, including:

- Red sea bream iridoviral disease
- Infectious spleen and kidney necrosis virus
- Pot Belly Syndrome
- Scale Drop Syndrome

Applying the same IRA process used by Biosecurity Australia, the project determined that the overall risk of introduction and establishment of these four diseases as a result of importation of Barramundi products is *Moderate*. Hence, significant, additional risk mitigation is required to achieve the Appropriate Level of Protection necessary to meet Australia's biosecurity standards.

In addition, exotic strains of *Vibrio* spp. and *Streptococcus* spp., pathogens that are present in Australia, were also identified as hazards, although the risk was lower.

The ABFA wrote to the Australian Government Department of Agriculture about its concerns on 11 October 2014 (Calogeras, 2014). The ABFA again wrote to the Minister for Agriculture and Water Resources on 9 January 2017, repeating its concerns (Hayward, 2017). In his response, the Minister stated that his department would evaluate the findings of the FRDC report referred to above, and *may conduct a review of current risk management measures if the outcomes of the report indicate the need*. The ABFA have provided a copy of the report and their recommendations on how to address the risks identified to the Assistant Secretary at the Animal Biosecurity Branch as indicated as the contact person by the Minister (3 May 2017) and also provided the Minister with the report and recommended actions (9 May 2017). The NAC joins with ABFA in strongly urging the Minister to initiate a review of the importation risk management arrangements for Barramundi products and other seafood sourced from aquaculture..

In the interim it is strongly recommended that a precautionary approach is applied to the importation of barramundi products, which should coincide with a testing regime where representative samples of imported fresh and frozen Barramundi products are tested for the above four diseases on arrival in Australia, and if positive results are obtained immediate preventative action is taken.

The Australian Salmonid Industry

Fresh and frozen salmon products are imported into Australia. Much of the salmon imported into Australia comes from Scandinavian countries (i.e. Norway) where serious diseases that do not occur in Australia are endemic (e.g. Infectious Salmonid Anaemia (ISA-v)).

The Industry has advised that frozen products (even when they are frozen at -20 degrees in the cold chain) are still able to host (and therefore import into Australia) some viruses (as has been demonstrated in the WSD incursion). While the Industry recognizes domestic reliance on imported salmon and does not advocate any banning of Norwegian salmon and salmon products, it does advocate improved quality assurance on the disease profiles on products being imported into Australia.

The salmon Industry, like the barramundi Industry sees the unintended correlation between the importation of aquaculture products for human consumption and the deposition of these products or the use of these products as bait for fishing or for use in crab-pots or cray-pots, as a significant risk. The use of imported prawns as bait was the most likely pathway for the incursion of WSD in the Logan River prawn farms.

It has been suggested that with respect to disease risk in farmed salmon, the implementation of a system of entry testing of imported salmon for exotic disease, would provide early warning of any increase in risk.

Although the Industry acknowledges that there are additional controls placed on the sourcing arrangements, including age of the fish, existence of disease monitoring schemes and supervision of processing and packaging requirements which are varied according to whether the final destination is retail or wholesale; it is noted that industry involvement in import/export discussions from a fish health and certification perspective, would greatly benefit the Industry. It is also agreed that the active inclusion of industry in the import risk analysis process, would help to ensure that the aquaculture industry would be represented in key decisions especially with respect to new biosecurity legislation and regulation.

The Australian Tuna Farming Industry

The Australian tuna farming industry, all based in Port Lincoln (SA), involves live capture of wild Southern Bluefin Tuna (SBT) in the Great Australian Bight (GAB), growing them out for 4-7 months then exporting the total harvest. The industry generates 1,300 FTEs on Eyre Peninsula.

Over 80% of the feed used in the farms is caught locally in the wild. The other 20% is imported and used under strict conditions.

The import of wild-sourced frozen baitfish by the Australian tuna farming industry was examined in detail in the 1999 IRA, and a whole range of import controls were initiated or strengthened. The Australian tuna industry supported and agreed with the controls. Subsequently A WTO Appeals Panel cleared these controls, declaring them as being consistent with Australia's Appropriate Level of Protection.

Only baitfish – e.g. sardines, mackerel – that are sourced from the wild are permitted to be imported for tuna farming. It is recognised that these are a much lower risk than any bait sourced from aquaculture. The Government authorities in countries exporting to Australia must certify safeguards have been met – such as that the product is from the wild, that it has been washed, that it is not packed with any risk species, that there are no visible lesions, and that it has been frozen.

The imports are subject to inspection at the border and post-border. The post-border measures include – water temperature cut-off points for species such as herring and certain sardine species, compulsory thawing, and restricted (documented) movement between Quarantine Approved Premises. The water temperature threshold points are set at very precautionary levels.

There is no history of a viral event in global wild tuna stocks and no evidence of introduction of any disease via frozen imports of bait for tuna farms throughout the world (Europe, Japan, North America

and Australia). The Australian industry has a strong biosecurity culture – for the tuna, for associated species such as sardines and for the wider ecosystem,

Given this history, and all the other biosecurity priorities in Australia, It is our submission that there is no need for any re-examination of the current import measures for baitfish that is sourced from the wild.

The Australian Oyster Farming Industry

The oyster herpes virus (OHsV-1) that causes Pacific Oyster Mortality Syndrome (POMS) was introduced into New South Wales in 2013. This introduction and the subsequent translocation of OHsV-1 to southern Tasmania in 2016 highlights the significant damaging financial and social effects that exotic aquatic diseases have on growers, employees and local communities.

It is clear and accepted that aquatic diseases will continue to emerge and impact upon oyster aquaculture (e.g. the recent emergence of pathogenic bacteria *Vibrio aestuarianus* which severely impacting oyster farming in France); consequently the oyster farming industry expects that the default position upon which Australia's biosecurity controls are founded is that it is highly likely that imported farmed seafood products will carry diseases that are exotic to Australian oyster aquaculture and industries in general.

As an aquaculture industry that operates in coastal regions, oyster aquaculture is highly dependent on disease exclusion as the primary tool for defending industry biosecurity as in reality there is little that can be done to eradicate an aquatic disease that is permitted to enter these open water systems.

Oyster aquaculture and indeed other species such as *Pinctada maxima* (silver lipped pearl oysters), which are also harvested and subsequently grown out using pearl culture open aquatic areas are particularly susceptible to breakdowns in environmental biosecurity. It is noted that while robust on farm environmental biosecurity and rigorous translocation protocols are adhered to, the entry of an aquatic disease into these systems can have devastating consequences, and as demonstrated with POMS recently often does.

3.6 OTHER BIOSECURITY ISSUES

On-Farm Biosecurity and Structural Adjustment

Aquaculture became established in Australia as a low biosecurity risk industry and has remained so until recent incursions of oyster herpes virus (OHsV-1), and WSD onto prawn farms in Queensland.

A major consequence of this latest WSD incursion is inevitably that not only prawn farms, but all aquaculture farms will need to review or increase their biosecurity arrangements, even when it has been clearly established that the incursion occurred through no fault of prawn farmers. The aquaculture industry has a major role in planning and implementing this transition and those sectors that have not yet done so will need to prepare farm specific a biosecurity/environmental Code of Practice and/or a biosecurity plans (Granville et al 2017).

It is noted that, the cost of upgrading farm infrastructure to meet biosecurity standards will run into many millions of dollars (World Bank, 2014, Ridge Partners, 2017). It would be a significant boost to an industry that despite being still very much in a development phase, if the governments of Australia could develop and implement structural adjustment programs that could assist the aquaculture industry to be more resilient and competitive and provide an agreed form of assistance in this area.

The NAC notes that a program similar to the Commonwealth On-Farm Further Irrigation Efficiency Program implemented for farms in the Murray Darling Basin could be a cost effective investment that could readily support Australian aquaculture.

Emergency Aquatic Animal Disease Response Agreement (Aquatic Deed)

Since early 2016 the Aquaculture industry and the Government have been committed to a process on agreeing on an emergency aquatic animal disease response framework, which is built on principles of mutual commitment, shared responsibility and cooperation.

It is acknowledged that there are a range of benefits to all parties from the implementation of an Aquatic Deed between the aquaculture industry, Commonwealth and State governments. It is noted that these benefits have been enjoyed in a terrestrial context with both the Emergency Animal Disease Response Agreement (EADRA) and the Plant Deed. These extant deeds are comprehensive and include cost sharing and financial compensation arrangements, shared responsibility and response management, the assistance of expert biosecurity groups such as Animal Health Australia in preparation of biosecurity plans, the training of industry staff in biosecurity, the delivery of emergency disease incursion simulation exercises and participation in the management of Australia's biosecurity system. It also allows the industry to come to agreement with the Australian and State governments so that industry representatives are part of the emergency disease response management bodies and are included in the decision making process. The agreement can also include conditions around communication and notification requirements.

The NAC has participated in the DAWR working group that is attempting to develop an Aquatic deed with all aquaculture industries, and has been committed to the process from its inception. However, it is not an easy process; the aquatic environment is challenging. It is not as previously anticipated, with the assumption that the terrestrial EADRA would be largely applicable to aquatic animals. What works in a terrestrial context does not readily translate in an aquatic context. For example unlike the terrestrial primary production industries, the aquatic environment provides little opportunity for quarantine; eradication in many aquatic contexts is not achievable with any real degree of certainty. What is more the connectivity of the aquatic environment (replete with aggravating factors such as currents, disease carrying animals such as birds, decapods and zooplankton and a lack of borders) makes control challenging, expensive and sustained.

Loss of Trust and Apparent Priority of Prosecution over Protection

It is noted, in evidence provided by Department of Agriculture and Water Resources (DAWR) staff to the Senate Estimates Committee over recent months, that DAWR had knowledge of the breakdown in biosecurity of prawn imports more than six months prior to the first diagnosis of WSD. It is further noted that the decision by DAWR not to inform industry and State governments of this situation in order to protect the integrity of prospective prosecutions has significantly damaged trust on many levels within the biosecurity framework. The recent correspondence from the Queensland Minister for Agriculture and Fisheries to the Deputy Prime Minister is one example of this problem (Byrne, 2017).

Similarly, evidence provided to the Senate Estimates Committee, confirming that 25 of 40 importers were under investigation for circumventing the import controls on prawn imports, is demonstrative of a systemic failure up and down the biosecurity and import regulatory process. Similarly, the apparent willingness of many prawn importers to flout biosecurity controls and the culture in DAWR that allowed it to happen has also reduced the confidence in Australia's import biosecurity framework for aquaculture products, to the point where there is substantial loss of faith in the whole import control process.

It is not enough to say that these problems were the result of a few rogues who worked around a system that is basically intact, the problem is now much deeper. After the release of the report of this Inquiry and that of the Inspector General of Biosecurity, a reconciliation meeting involving senior executives of all stakeholders might help clear the air and begin the confidence restoration process.

3.7 RECOMMENDATIONS

Recommendation 1

The NAC strongly urges the Australian Government to implement the recommendations provided to this Inquiry in the submission by the Australian Prawn Farmers Association.

Recommendation 2

The NAC recommends that an urgent Import Risk Analysis (IRA) be initiated for barramundi in the face of recognized, specific disease threats. This IRA needs to be predicated on Barramundi specific Harmonized Commodity Description and Coding System (HS) codes.

Recommendation 3

The NAC recommends that in order to ensure important that import controls are fit for purpose, are within Australia's best interest and are consistent with Australia's international trade obligations including conformance with WTO rules, SPS Agreement provisions and trade agreements with key export markets; there should be greater inclusion of aquaculture and seafood producers at the biosecurity/trade interface. Currently Industry although consulted, is all but excluded from direct engagement in these processes. It is NAC's submission that aquaculture seafood producers are well placed to understand the tension between the importance of engaging with external markets and relying on and adhering to effective biosecurity.

Recommendation 4

The NAC strongly urges the Australian Government to undertake an IRA for molluscs.

Recommendation 5

The NAC acknowledges that it can take up to a year or more to complete an IRA. Therefore the NAC recommends that concurrent with the time required to undertake an IRA review, surveillance testing for exotic diseases should be conducted on representative samples of all imported, fresh and frozen aquaculture sourced seafood. In the event that there are significant detections, strong mitigation measures must be implemented, which could include temporary suspension of fresh and frozen aquaculture imports until the risk can be demonstrated to be low and that ALOP can be achieved.

The outbreak of white spot disease in Queensland puts considerable pressure on Australia's competitive advantage as a low biosecurity risk aquaculture producer of high quality prawns. All prawn farms must now consider making significant capital investments in biosecurity infrastructure to prevent the introduction of disease agents. This includes arrangements for water filtration, disinfection, and the control of crabs, birds and the prevention of access by unauthorized persons.

Recommendation 6

The NAC encourages Commonwealth and State Governments to provide financial support for existing aquaculture farms to rapidly upgrade their biosecurity infrastructure. A system similar to the Commonwealth On-Farm Further Irrigation Efficiency Program available to farms in the Murray Darling Basin would be a cost effective investment.

The NAC notes that, following the incursions of POMS and WSD, leaders in government and industry recognise the negative impact of the absence of an Aquatic Emergency Animal Disease Response Agreement (Aquatic Deed) between Governments and Industry. Acknowledging that negotiations for an Aquatic Deed by Industry and Government parties is currently underway; it is widely accepted that such

an agreement should significantly improve communication, coordination and financing of future emergency disease responses.

Recommendation 7

Until the ratification of the Aquatic Deed, It is the recommendation of NAC that the Government remains totally responsible for any disease entry, which is the result of breakdowns in border biosecurity. (Aaron: Again, I thought our position is that this should also be in the Deed).

The NAC submits that evidence provided by Department of Agriculture and Water Resources (DAWR) staff to the Senate Estimates Committee over recent months makes it clear that DAWR knew of the breakdown in WSD biosecurity more than six months prior to the first diagnosis of WSD. The decision by DAWR not to inform Industry and State governments of this situation in order to protect the integrity of criminal prosecutions in Operation Cattai, has significantly damaged trust on many levels within the biosecurity chain. Similarly, the apparent willingness of many prawn importers to flout biosecurity controls and the culture in DAWR that allowed it to happen has reduced the confidence in Australia's import biosecurity framework for aquaculture products.

4. CONCLUDING COMMENT:

The NAC appreciates the opportunity to make this submission and looks forward to working with the Senate Standing Committees on Rural and Regional Affairs and Transport and other interested parties to facilitate an improved, more inclusive and more effective National biosecurity framework and ultimately effectuate improved biosecurity outcomes, especially with respect to the importation of aquaculture sourced seafood and seafood products, where unacceptable risk to Australia's aquaculture industry can be directly or indirectly demonstrated.

Thank NAC is happy to discuss our submission should it be required.

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